

ABSTRACT

The present invention provides an apparatus and method for improving the accuracy of circuits. The apparatus includes a replicate circuit and a trim determination circuit. The trim determination circuit includes a measurable circuit element and determines the state of the measurable element. The replicate circuit includes a replicate circuit element which has similar electrical characteristics as the measurable element, and is configured to aid in determining an adjustable test current. The trim determination circuit generates a test current which is proportional to the adjustable test current. The test current is passed through the measurable element such that a first voltage drop occurs across the measurable element. A measured current is generated at a current level dictated by the voltage drop across the measurable element, such that the state of the measurable element is determined by the difference between the measured current and a scaled reference current.